

From: [McKenna, James \(Jim\)](#)
To: [Eric Blischke/R10/USEPA/US@EPA](#)
Subject: FW: Shellfish Consumption
Date: 03/13/2007 01:50 PM

Eric,

Based on our conversation last week about clam consumption and the 5,000x factor that the LWG use, I asked Laura Kennedy to provide a summary as to why she feels there is no need to collect additional data (see below). Obviously, we would have to add to this analysis the fact that the clams are illegal to harvest! Anyway, I am passing on her assessment to you so that you understand Laura's position as you field comments/questions from your team.

The bottom line from Laura is that the Round 2 Report analysis for clams and TZW is so conservative as to not even pass the laugh test (her words). She said that from a technical standpoint, she has put forth all the arguments as to why additional field work to address this issue is simply unwarranted. Her final statement to me was "this is now a Management Team issue." From the LWG's perspective we would have to be convinced that in situ bioassays, or any other additional data collection proposals related to exposure to clams, would be value-added to the RI/FS.

Thanks, Jim.

From: Laura Kennedy [mailto:LauraKennedy@KennedyJenks.com]
Sent: Monday, March 12, 2007 3:29 PM
To: McKenna, James (Jim)
Subject: Shellfish Consumption

Jim,

Here is a brief summary of why we're evaluating shellfish consumption in the R2 HHRA and why we don't believe additional data collection is needed for this exposure scenario:

- There is no documentation that shellfish consumption actually occurs in Portland Harbor. However, supposedly ODHS was contacted by someone who wanted to know if it was "safe" to eat clams. As a result, we included freshwater clam consumption at the request of EPA to assist with public communication of potential risks, not because we believe that this represents a realistic ongoing exposure scenario. Based on the national fish dietary study (which is the basis of the fish and shellfish ingestion rates used in the R2 HHRA), freshwater clams are not commonly consumed by humans.
- In Round 1, the maximum clam mass collected at a single station was approximately 260 grams. In Round 2, the maximum clam mass collected at a single station was approximately 220 grams. Most stations (32 of 38) had less than 100 grams of clam biomass. The maximum clam mass in Round 2 was collected over approximately 15,000 square feet.
- The R2 HHRA considered two shellfish ingestion rates: 3.3 grams per day and 18 grams per day. These ingestion rates are assumed every day of the year, every year for 30 years. At the highest ingestion rate, a single person would deplete the maximum biomass at a single location in approximately 15 days.
- In the TZW screening evaluation, we used the maximum detected concentration for each chemical in TZW, which is not representative of Harbor-wide or even upland site-wide TZW concentrations. An adjustment factor of 5,000 (which includes a 5-fold factor for the lower shellfish ingestion rate, a 10-fold factor for TZW respiration by shellfish, and a 100-fold factor for 10⁻⁴ risk) was applied to the

maximum concentration. The adjusted maximum concentration was then compared directly to the AWQC for fish consumption (which is based on continuing fish consumption over 70 years at a rate of 17.5 grams per day every day). We believe that this screening comparison is adequately conservative to evaluate whether TZW might be a significant risk driver for Portland Harbor given the findings of the R2 HHRA.

If you have any questions or would like to discuss further, just let me know.

- Laura

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